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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,240	07/22/2003	Pierre Tequi	T-6119	7571

7590 07/14/2006

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EXAMINER

ANTHONY, JOSEPH DAVID

ART UNIT PAPER NUMBER

1714

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/624,240	Applicant(s) TEQUI ET AL.	
	Examiner Joseph D. Anthony	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 10-12, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salentine U.S. Patent Number 4,717,490 in view of Kawabata et al. U.S. Patent Number 5,173,202 and *Hawley's Condensed Chemical Dictionary*.

See section "7." in the PTO office action mailed 10/31/2005 for details.

3. Claims 8-9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salentine U.S. Patent Number 4,717,490 in view of Kawabata et al. U.S. Patent Number 5,173,202 and *Hawley's Condensed Chemical Dictionary*, and further in view of Chrisope et al. U.S Patent Number 5,360,562.

See section "8." in the PTO office action mailed 10/31/2005 for details.

Response to Arguments

4. Applicant's arguments filed 04/27/2006 have been fully considered but are not persuasive to put the application in condition for allowance for the reasons set forth above. Additional examiner comments are set forth next.

Art Unit: 1714

Applicant's first argument for patentability is that the applied secondary reference to Kawabata et al. does not explicitly disclose that the taught boron nitride lubricants are in the form of hexagonal boron nitrides which are claimed by applicant. Although this is true it is considered moot since it is notoriously well known in the art that boron nitrides commonly used as lubricants take the form of hexagonal boron nitrides (i.e. hBN), with their graphite-like form. One having ordinary skill in the lubricating art would readily know that the compound "boron nitride" is a shorthand expression of "hexagonal boron nitrides", see *Hawley's Condensed Chemical Dictionary*. The other forms that boron nitride can take such as rhombohedral (rBN), cubic (cBN) and wurtzite (wBN) are almost always designated as such since they are not the standard form commonly used in lubricants especially at the date of the applied Kawabata et al patent. The examiner has thus established a strong *prima facie* case of obviousness over all of applicant's claims.

Applicant's second argument for patentability is that applicant's specification has a showing of superior and unexpected results for the use of lubricants dispersions containing admixtures of hydrated alkali metal borate and hexagon boron nitride as compared to using either lubricant alone, see Table 1 on page 19 of the specification. Although, Table 1 does show superior and unexpected results for certain lubricants dispersions containing admixtures of hydrated alkali metal borate and hexagon boron nitride, such a showing does not put applicant's claims in condition for allowance because it is not commensurate with the breath of applicant's pending claims. Applicant's pending claims recite a weight ratio of hydrated alkali metal borate to the hexagon boron nitride of about 95:5 to about 5:95 (i.e. about 19:1 to 1:19). A look at

Art Unit: 1714

applicant's Lubricant Composition 1, has a calculated weight ratio of hydrated potassium triborate to the hexagon boron nitride of 2.1:1.0. A look at applicant's Lubricant Composition 2, has a calculated weight ratio of hydrated potassium triborate to the hexagon boron nitride of 4.2:1.0. A look at applicant's Lubricant Composition 3, has a calculated weight ratio of hydrated potassium triborate to the hexagon boron nitride of 8.4:1.0. As can be readily seen, said calculated weight ratios are far more narrow in scope than applicant's claimed weight ratio of about 95:5 to about 5:95 (i.e. about 19:1 to 1:19). Furthermore, Lubricant Composition 1-3 all use hydrated potassium triborate as the hydrated alkali metal borate species and applicant has not shown that other hydrated alkali metal borate species would also have a synergistic effect when used in combination with hexagon boron nitride.

Finally applicant's Terminal Disclaimer has been approved by the PTO.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1714

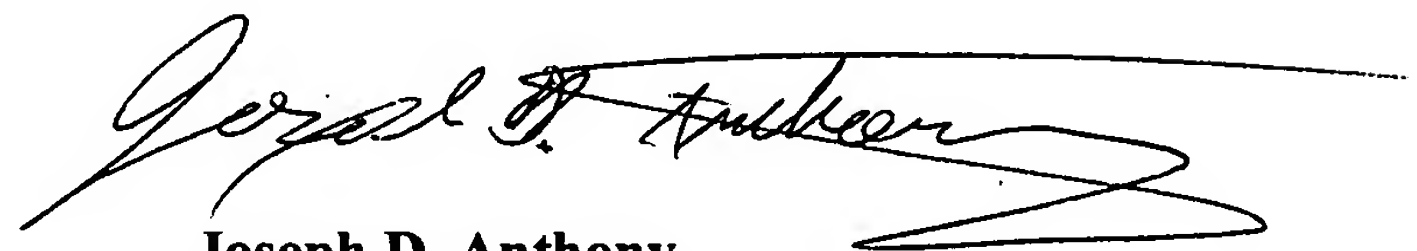
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Prior-Art Cited But Not Applied

6. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



**Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714**

7/8/06